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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/325,418	06/04/1999	KATSUAKI YAMANOI	Q54672	2787

7590

08/12/2002

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EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 08/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/325,418

Applicant(s)

YAMANOI ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on July 15, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 7 and 10-19 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Argument

1. Applicant's Remarks filed on July 15, 2002 have been fully considered but they are not persuasive.

In the Remarks, on page 12, lines 1 and 2, Applicant points out that the components 20, 36 and 37 do not teach a decision device that determines if data, which is recorded in two different areas of the disk, is valid during a recording operation. Accordingly, components 20, 36 and 37 are system controller, data encode/decode and EFM/CIRC circuit, respectively. Each of the above components is a decision device. For example, the EFM/CIRC circuit 37 is used to detect and correct encoding errors during a recording operation.

The detecting and correcting functions performed by the circuit 37 are considered as decision processes. These decision processes will check whether the data is valid (no error) or not during a recording operation. Furthermore, it doesn't matter whether the data is stored in one area, or two different areas, the circuit 37 eventually will check whether it is valid (properly encoded) or not. Verifying all recorded data in different locations is an inherent feature of the decision devices such as EFM/CIRC 37.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (U.S. Patent 5,859,815) in view of Furukawa et al. (U.S. Patent 5,315,578).

Inoue teaches an optical recording unit very similar to the instant invention. For example, Inoue teaches the following:

(a) as in claim 1, a memory 35 for storing data provided for recording (Fig. 6; column 9, lines 34-39);

(b) as in claim 1, a record device for recording the data stored in the memory 35 on to a recording medium 1 (Fig. 6);
and

(c) as in claim 1, a decision device 37, 36 and 20 for determining the data as valid data during the recording of the

data on the record medium 1 (Fig. 6; decoding circuit 36 and 37 will detect data and correct data if it is not valid).

However, Inoue does not teach the following:

(a) as in claim 1, the data being recorded in at least two different areas on the record medium.

Furukawa teaches a disc recording medium where data is repeatedly recorded in different areas 116 and 118 (Figs. 1 and 2a).

To prevent error, Furukawa illustrates that a conventional recording unit records data twice (column 1, lines 16-25). Since data error caused by scratches, dust and bad sectors etc., might occur in any recording medium such as Inoue's, it would have been obvious to one of ordinary skill in the art at the time of invention to use a conventional recording format as taught by Furukawa where the same data is repeatedly recorded twice, because the same data can be accessed from a different location even if the first data fails to read properly.

4. Claims 2-5, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (U.S. Patent 5,859,815) in view of Furukawa et al. (U.S. Patent 5,315,578).

Inoue teaches an optical recording unit very similar to the instant invention. For example, Inoue teaches the following:

(a) as in claim 2, a memory 35 for storing data provided for recording (Fig. 6);

(b) as in claim 2, a record device 4 for intermittently recording the stored data in the memory 35 onto a recording medium 1 (Fig. 6);

(c) as in claim 2, a valid-data decision device 37, 36 and 20 for determining whether the recorded data is valid (Fig. 6; decoding circuit 36, 37 and 20 will decide and recover a valid/non-error data);

(d) as in claim 2, the valid-data decision device determines one valid data among the recorded data of the different areas on the record medium 1 as valid data during the recording of the data on the record medium 1 (Fig. 6; decoding circuit 36, 37 and 20 will decide and recover a valid/non-error data among different locations);

(e) as in claim 3, a record control device 20 for controlling the record device 4, wherein the record control device 20 provides a control command for the record device 4 to

record a predetermined quantity of data stored in the memory 35 at a first recording location on the record medium 1 and also provides a control command for the record device 4 to read the predetermined quantity of data at a second recording location different from the first recording location after the predetermined quantity of data is recorded at the first recording location (Fig. 6; inherent feature where certain amounts of data are recorded at certain locations and certain amounts of data are accessed at different locations is a necessary requirement for a typical recording unit); and

(f) as in claim 4, a blank area search device for searching a blank area on the record medium 1, wherein the first recording location has a predetermined address of a blank area searched by the blank area search device, and the second recording location has an address different from the predetermined address of the searched blank area (Fig. 6; blank area on the record medium is a non-recorded block/zone. Therefore, searching addresses of blocks/zones which are not yet occupied is a necessary requirement for a typical recording process);

(g) as in claim 5, a data update device 20 and 5 for updating data address information recorded in a control area (table of contents, U-TOC) on the record medium for controlling data addresses, wherein the data update device 20 updates a

data address of which data has been decided to be valid by the valid-data decision device (Fig. 3; column 3, lines 34-44); and

(h) as in claim 8, the data update device updates a data address in a control area on the record medium so that the data address becomes blank when said valid-data decision device has determined that data corresponding to the data address is not valid (Fig. 3; column 3, lines 34-44; a defective area's address is slip).

However, Inoue does not teach the following:

(a) as in claim 2, the record device records the data in at least two different areas on the record medium;

(b) as in claim 9, the record device continues recording into the first recording location until the remaining data quantity in the memory reaches a predetermined quantity, and continues recording into the second recording location until the record device has recorded data originally identical with the data that has been recorded into the first recording location.

Furukawa teaches a disc recording medium where data is repeatedly recorded in different areas 116 and 118 as in above claims 2 and 9 (Figs. 1 and 2a).

To prevent error, Furukawa illustrates that a conventional recording unit records data twice (column 1, lines 16-25). Since data error caused by scratches, dust and bad sectors

etc., might occur in any recording medium such as Inoue's, it would have been obvious to one of ordinary skill in the art at the time of invention to use a conventional recording format as taught by Furukawa where the same data is repeatedly recorded twice, because the same data can be accessed from a different location even if the first data fails to read properly.

Allowable Subject Matter

5. Claims 6, 7 and 10-19 are allowable over prior art.

6. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 6, 7, 14, 18 and 19, the prior art of record fails to teach or fairly suggest the following features: A recording unit having a vibration/servo detection device. The recording unit has a record device where data is recorded in at least two different areas. In addition, a valid-data decision device for determining whether the data is valid according to the flags stored by first and second storage devices. The first storage device stores a first flag indicating the occurrence of a vibration in relation to a predetermined address. The second storage device stores a second flag in relation to another predetermined address so as to indicate the decision of the valid-data decision device.

As in claims 10, 11 and 15, the prior art of record fails to teach or fairly suggest a recording unit where data is recorded four times and a valid-data decision device for determining whether the data is valid based on a result of a disturbing vibration during each of the four recording operations.

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.
20231 Or faxed to:

(703) 872-9314 (for formal communications intended for
entry. Or:

(703) 746-6909, (for informal or draft communications,
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park
II, 2021 Crystal Drive, Arlington. VA., Sixth Floor
(Receptionist).

Any inquiry of a general nature or relating to the status
of this application should be directed to the Group
receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Kim CHU
whose telephone number is (703) 305-3032 between 9:30 am to
6:00 pm, Monday to Friday.

K 7/29/02

Kim-Kwok CHU
Examiner AU2653
July 29, 2002

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